



# NORTH CAROLINA

Department of Transportation



# External Scoping/CP 1 Meeting

## STIP Project R-5706

July 19, 2018

# INTRODUCTIONS

- In Person Attendees
- Attendees on Phone

# AGENDA

- Introductions
- Meeting Purpose and Goals
- Project Review
- Project Description and History
- Project Scoping/Agency Input
  - Regulatory / Resource Agencies and MPO/Local Officials Report
- Next Steps / Schedule
- Concurrence Point 1 (CP 1)
  - Project Purpose and Need & Study Area Defined
  - General Discussion
  - Concurrence

# MEETING PURPOSE AND GOALS

- Transfer Information about project to Agencies and External Partners
- Understand Project Background
- Identify Constraints
- Strategize Next Steps
- Reach Concurrence on Project Purpose and Need & Study Area Defined

# WHERE HAVE WE BEEN?

- NC 73 Corridor Projects Coordination Meeting hosted by the Town of Huntersville: 9/23/2015
- NC 73 Corridor Projects Public Involvement Coordination Meeting: 11/20/2015
- Internal Scoping Meeting: 08/08/2017
- NC 73 Council of Planning Meetings and Local Officials Meetings: 09/2017 - 03/2018
- Merger Screening Meeting: 11/15/2017
- Decision on Merger Status: 05/07/18

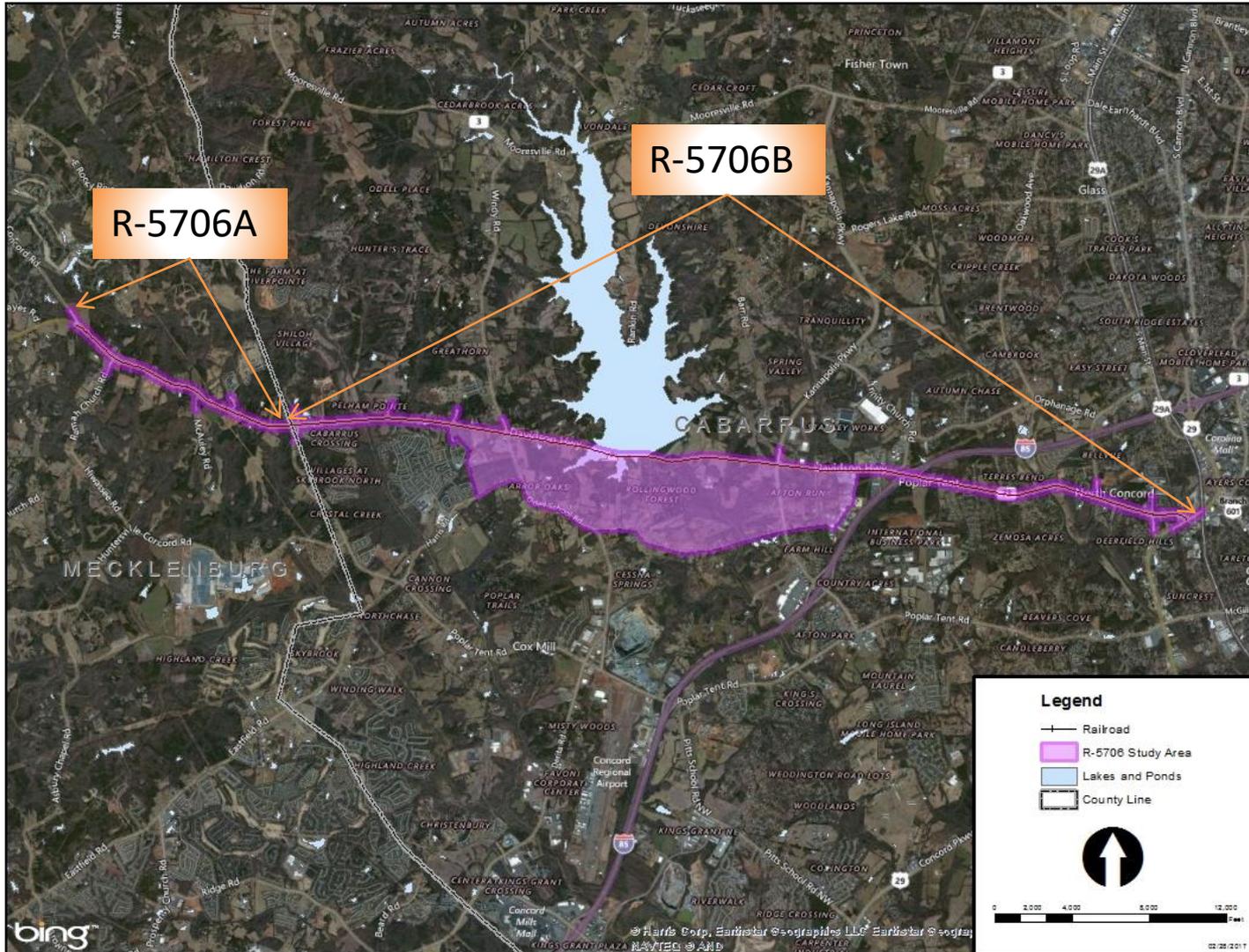
# ACTIVITIES TO DATE

Landowner Notification Letters	September 2016
NRTR Fieldwork	September 2016, January 2017, May 2017
Final NRTR approved	August 2017
Draft PJD Request submitted	August 2017
Community Characteristics Report approved	September 2017
Traffic Forecast completed	September 2017
Preliminary Hydraulics Report approved	December 2017
Archaeology Study completed by NCDOT	April 2018
Draft Historic Survey provided by NCDOT	April 2018
GeoEnvironmental Planning Report completed by NCDOT	May 2018

# ON-GOING AND FUTURE ACTIVITIES

- Merger Process
- Traffic Analysis in progress
- Indirect & Cumulative Effects in progress
- Land Use Scenario Assessment needed
- Public Meeting (Late Summer-Early Fall 2018)
- Roadway Design in progress
- Air and Noise
- SEPA EA/FONSI (Summer 2019)

# PROJECT LOCATION: R-5706



# PROJECT DESCRIPTION

- STIP Project R-5706

- Project Length: 11.3 miles
- Proposes widening of NC 73 from Davidson-Concord Road (SR 2693) to Concord Parkway (US 29).
- Currently two-lane undivided with turn lanes at most intersections.
- Currently few sidewalks and no bike facilities.
- Improvements just east and west of I-85 complete, including construction of diverging diamond interchange.



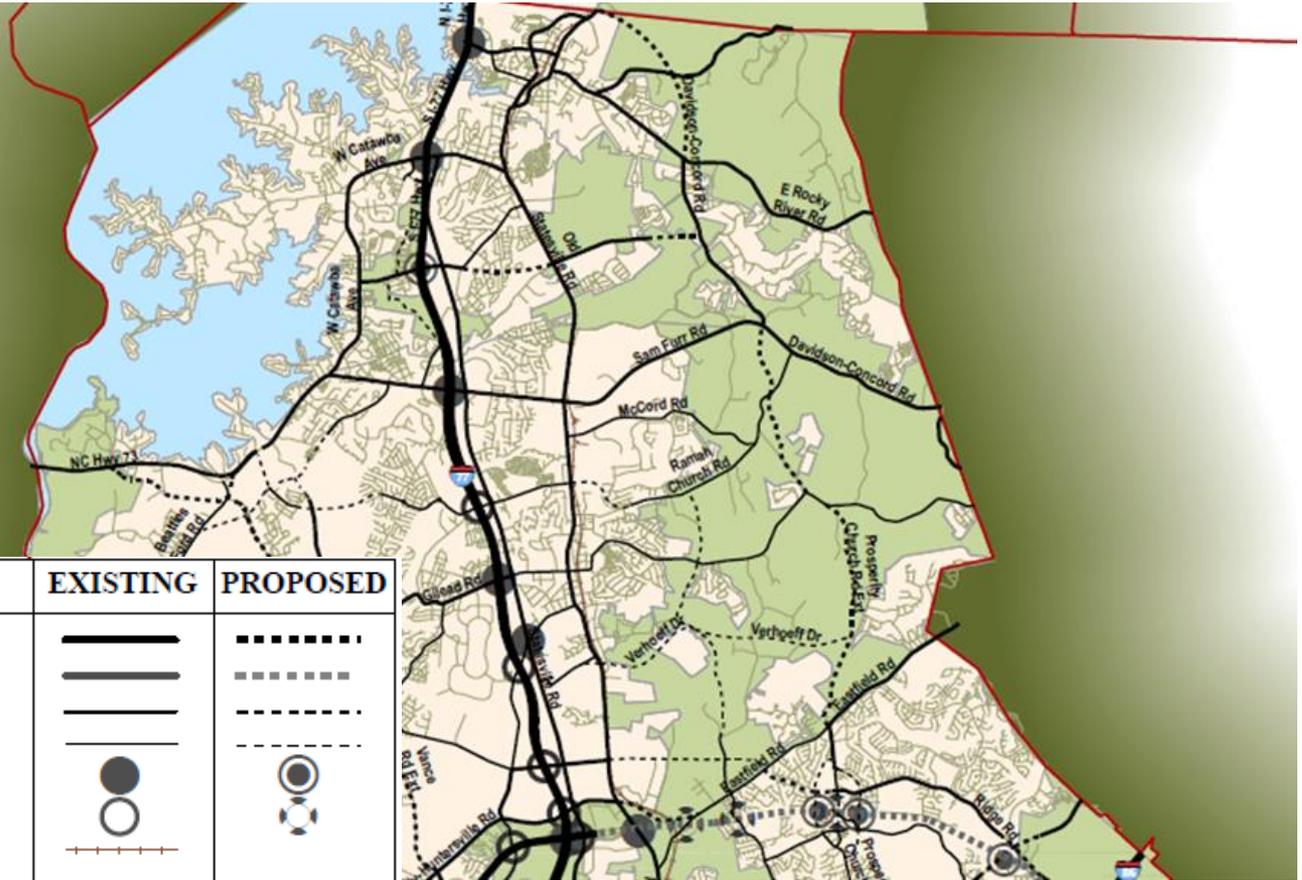
# PROJECT SCHEDULE

- State EA/FONSI: Summer 2019
- Right of Way: FY 2020
- Construction: FY 2022



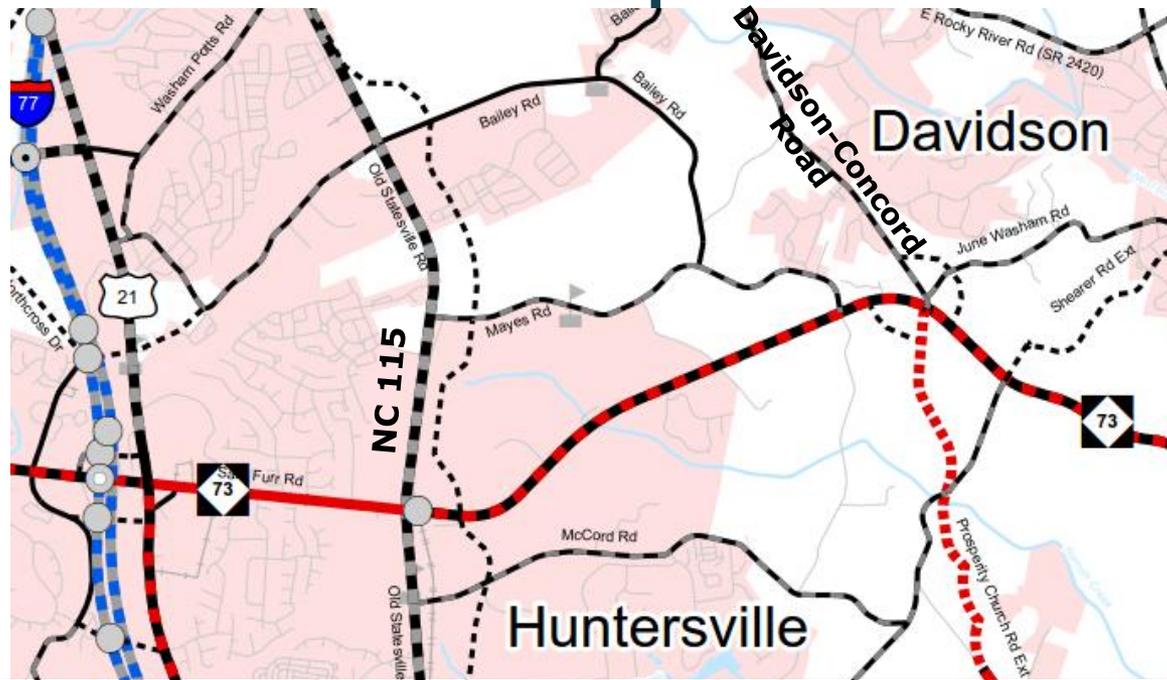
# CRTPO Thoroughfare Plan

LINCOLN



CLASSIFICATION	EXISTING	PROPOSED
FREEWAY-EXPRESSWAY	Thick solid line	Thick dashed line
CLASS II	Medium solid line	Medium dashed line
MAJOR THOROUGHFARE	Thin solid line	Thin dashed line
MINOR THOROUGHFARE	Thin solid line	Thin dashed line
INTERCHANGE	Two overlapping circles	Two overlapping circles with a central dot
GRADE SEPARATION	Circle with a central dot	Circle with a central dot and a surrounding ring
RAILROAD	Line with cross-ticks	Line with cross-ticks

# CRTPO CTP – Adopted March 2017



<p><b>Freeways</b></p> <ul style="list-style-type: none"> <li>Existing: Solid blue line</li> <li>Needs Improvement: Blue line with white dashes</li> <li>Recommended: Blue dashed line</li> </ul> <p><b>Expressways</b></p> <ul style="list-style-type: none"> <li>Existing: Solid green line</li> <li>Needs Improvement: Green line with white dashes</li> <li>Recommended: Green dashed line</li> </ul> <p><b>Boulevards</b></p> <ul style="list-style-type: none"> <li>Existing: Solid red line</li> <li>Needs Improvement: Red line with white dashes</li> <li>Recommended: Red dashed line</li> </ul> <p><b>Other Major Thoroughfares</b></p> <ul style="list-style-type: none"> <li>Existing: Solid black line</li> <li>Needs Improvement: Black line with white dashes</li> <li>Recommended: Black dashed line</li> </ul>	<p><b>Minor Thoroughfares</b></p> <ul style="list-style-type: none"> <li>Existing: Solid black line</li> <li>Needs Improvement: Black line with white dashes</li> <li>Recommended: Black dashed line</li> </ul> <p><b>Interchanges</b></p> <ul style="list-style-type: none"> <li>Existing: Circle with a dot</li> <li>Needs Improvement: Circle with a larger dot</li> <li>Recommended: Circle with a smaller dot</li> </ul> <p><b>Interchanges with Managed Lanes Access</b></p> <ul style="list-style-type: none"> <li>Existing: Triangle with a dot</li> <li>Needs Improvement: Triangle with a larger dot</li> <li>Recommended: Triangle with a smaller dot</li> </ul>	<p><b>Grade Separations</b></p> <ul style="list-style-type: none"> <li>Existing: Circle with a dot</li> <li>Needs Improvement: Circle with a larger dot</li> <li>Recommended: Circle with a smaller dot</li> </ul>
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0 0.5 1 2 Miles

Sheet 2F of 5

Base map date: January 4, 2017

Refer to CTP document for more details

**Highway Map Inset F**

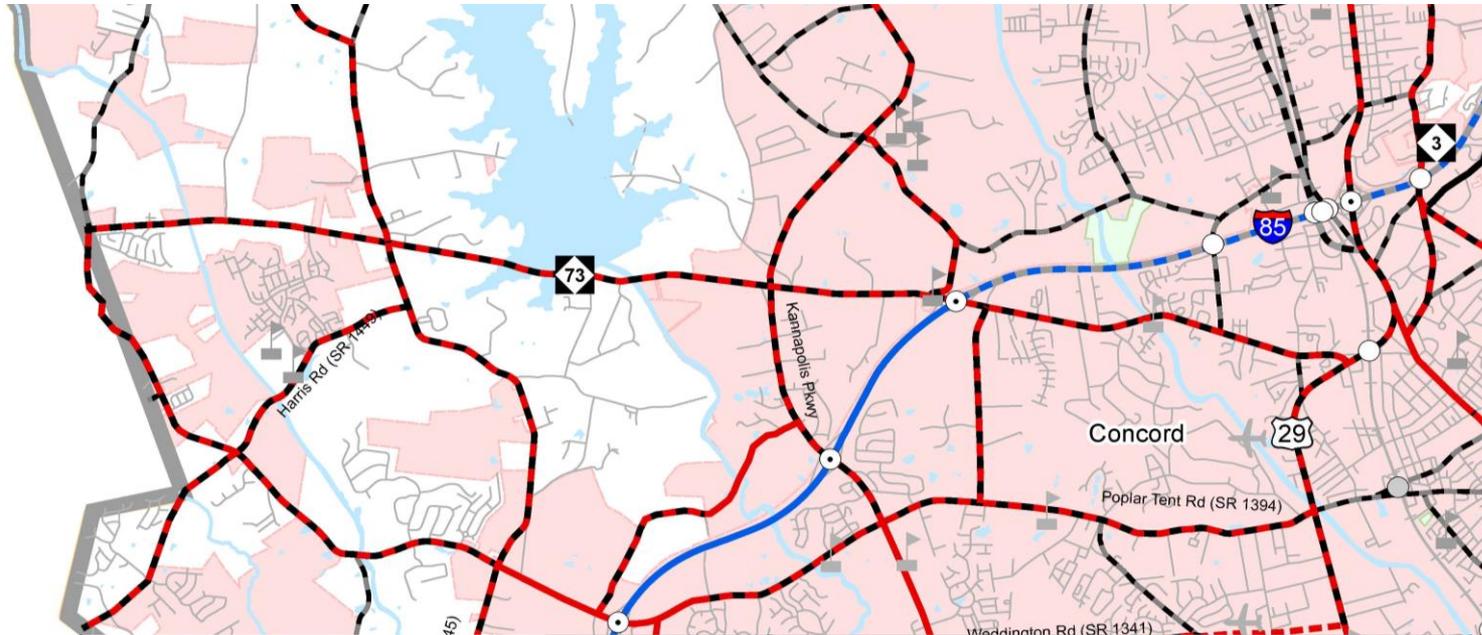
**Charlotte Regional Transportation Planning Organization**

North Carolina

**Comprehensive Transportation Plan**

Plan date: January 18, 2017

# CRMPO CTP - Adopted March 2017



<b>Freeways</b>	<b>Other Major Thoroughfares</b>
Existing	Existing
Needs Improvement	Needs Improvement
Recommended	Recommended
<b>Expressways</b>	<b>Minor Thoroughfares</b>
Existing	Existing
Needs Improvement	Needs Improvement
Recommended	Recommended
<b>Boulevards</b>	Existing Interchange
Existing	Proposed Interchange
Needs Improvement	Interchange Needs Improvement
Recommended	Existing Grade Separation
	Proposed Grade Separation



Sheet 2C

Base map date: January 21, 2015

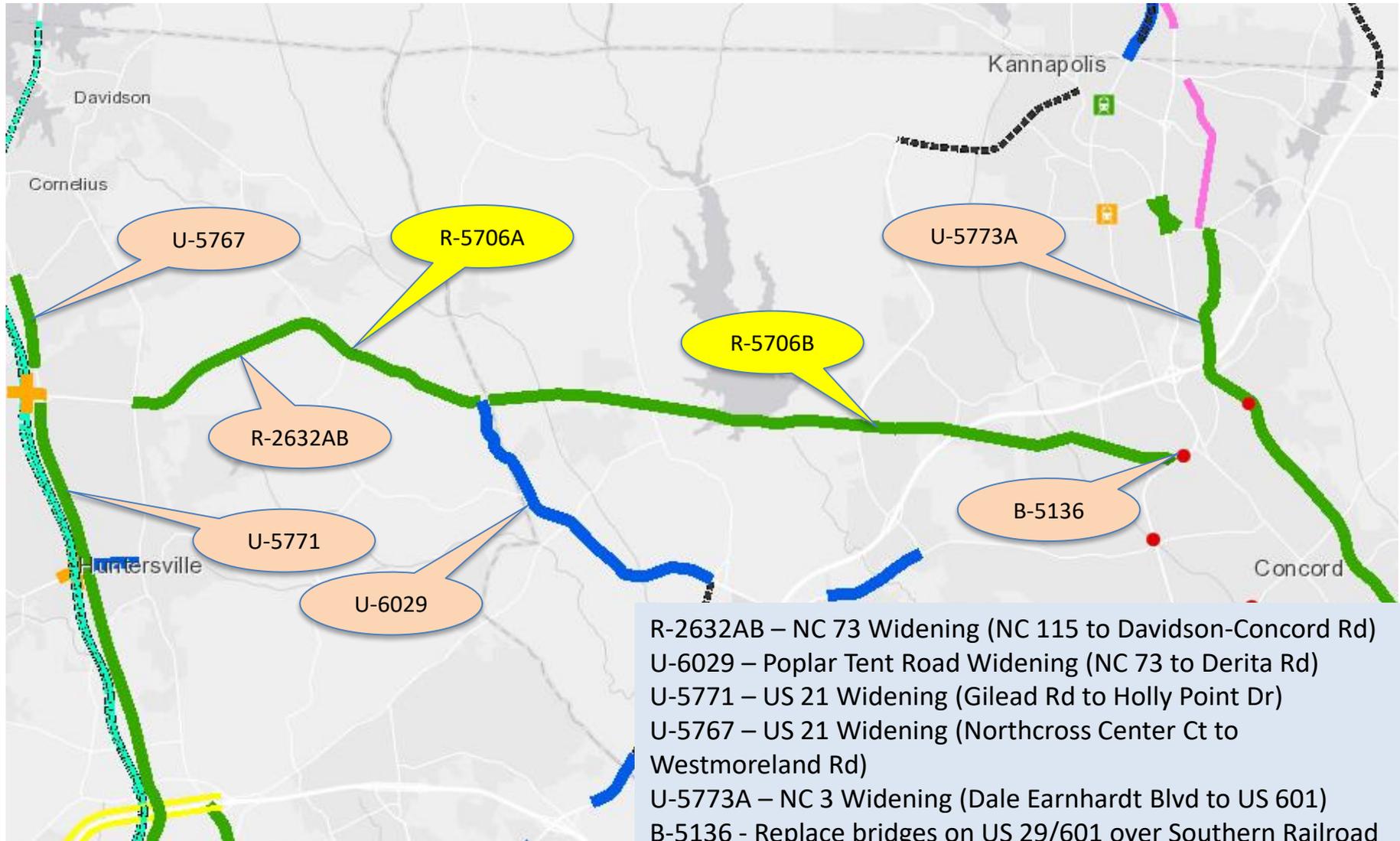
Refer to CTP document for more details

**Highway Map  
 Insets C, F, G, H  
 Cabarrus-Rowan  
 MPO**

**Comprehensive  
 Transportation Plan**

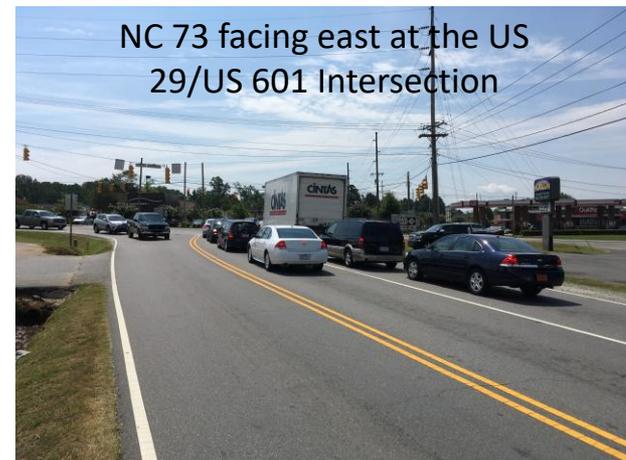
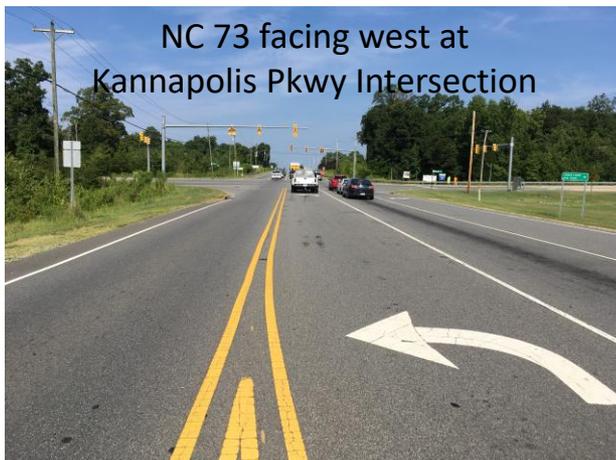
Plan date: September 26, 2016

# NEARBY STIP PROJECTS



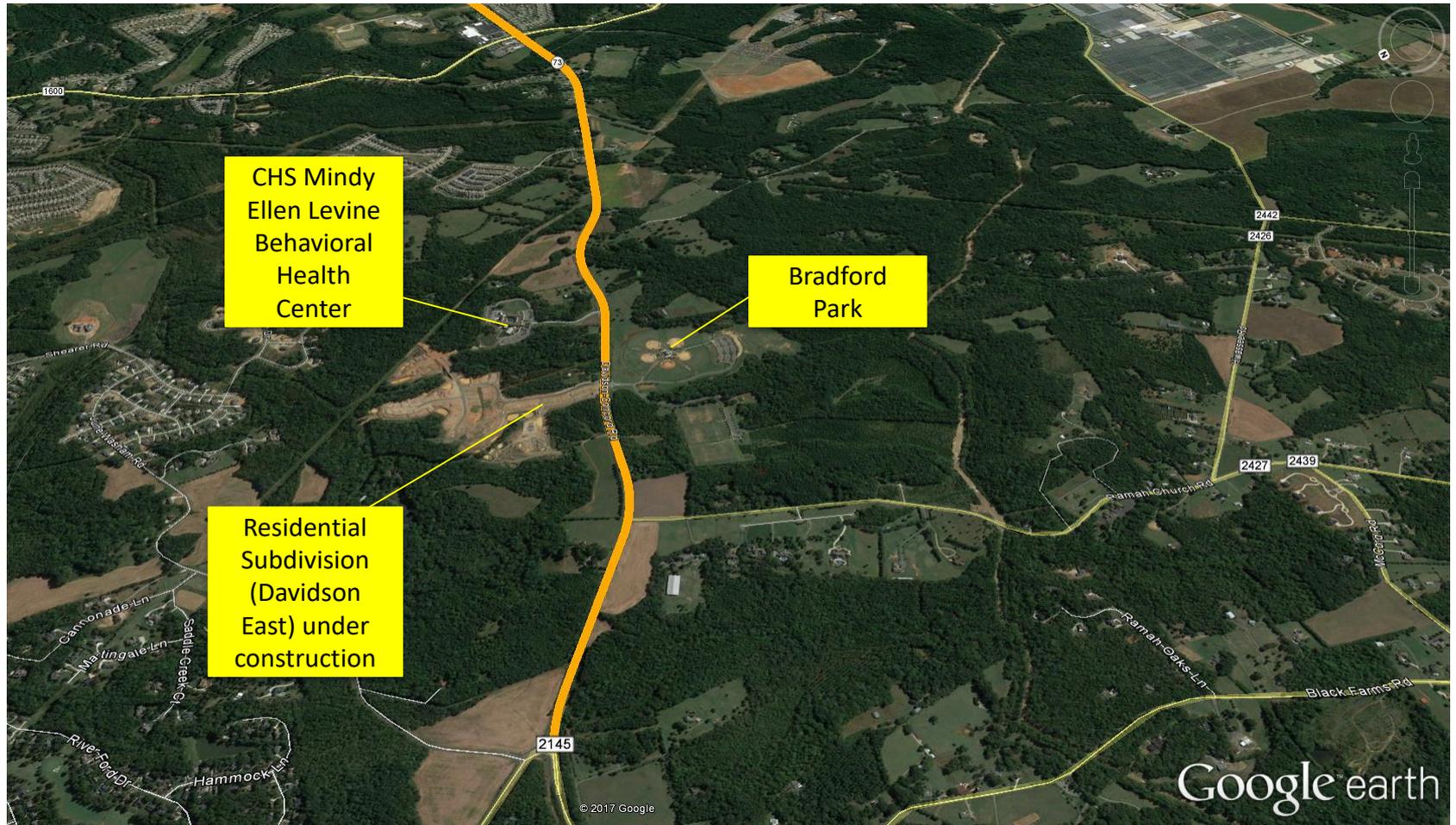
# EXISTING CONDITIONS

- 2-lane undivided with no access control
- Posted Speed: 55 MPH to Kannapolis Parkway, 45 MPH to US 29
- ROW: 60 feet predominantly. Greater than 60 feet at some intersections
- +/- 6 culvert crossings and 3 stream bridges on NC 73; one highway bridge over I-85
- No railroad crossings
- No bicycle or pedestrian facilities with few exceptions.

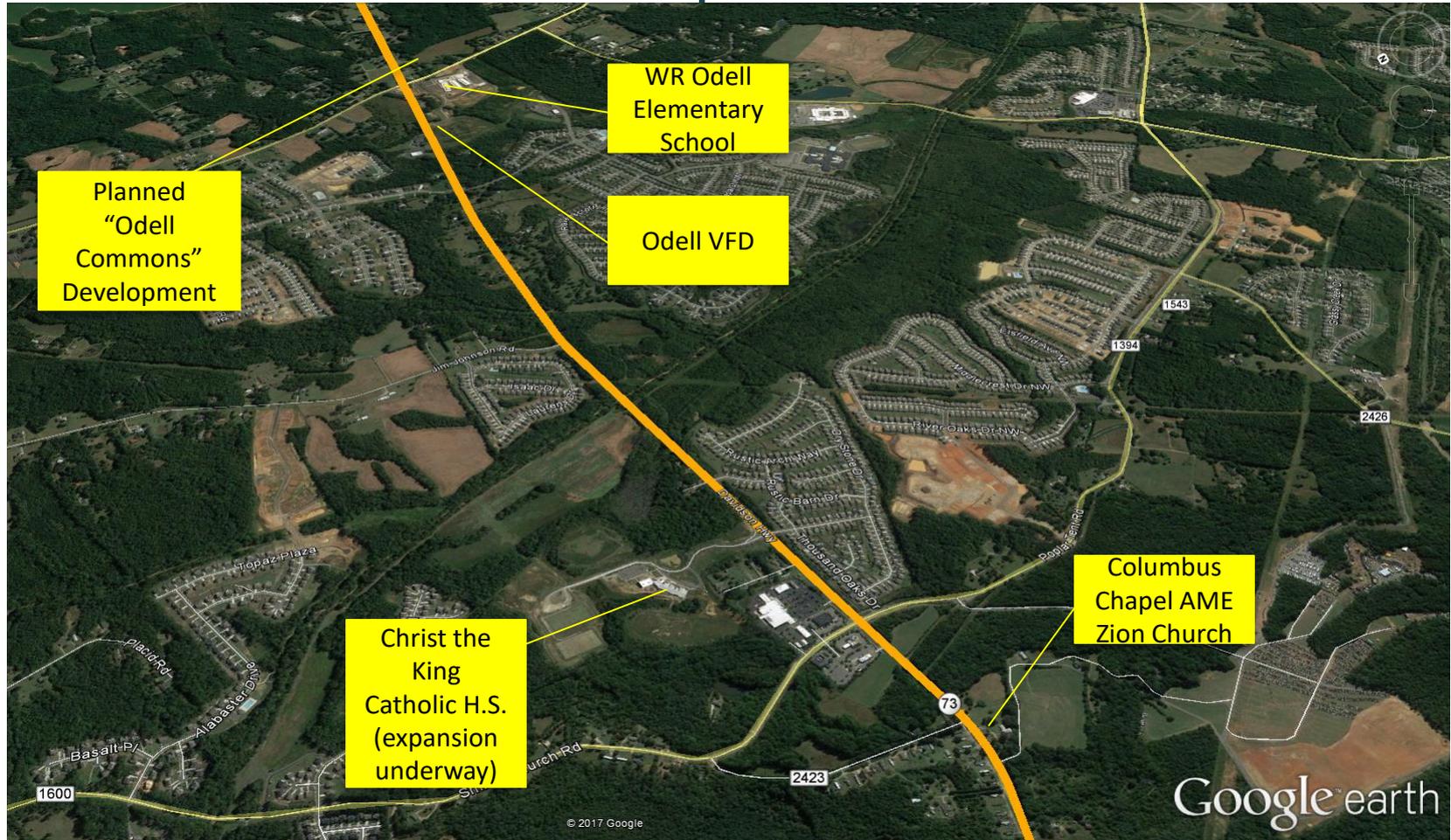




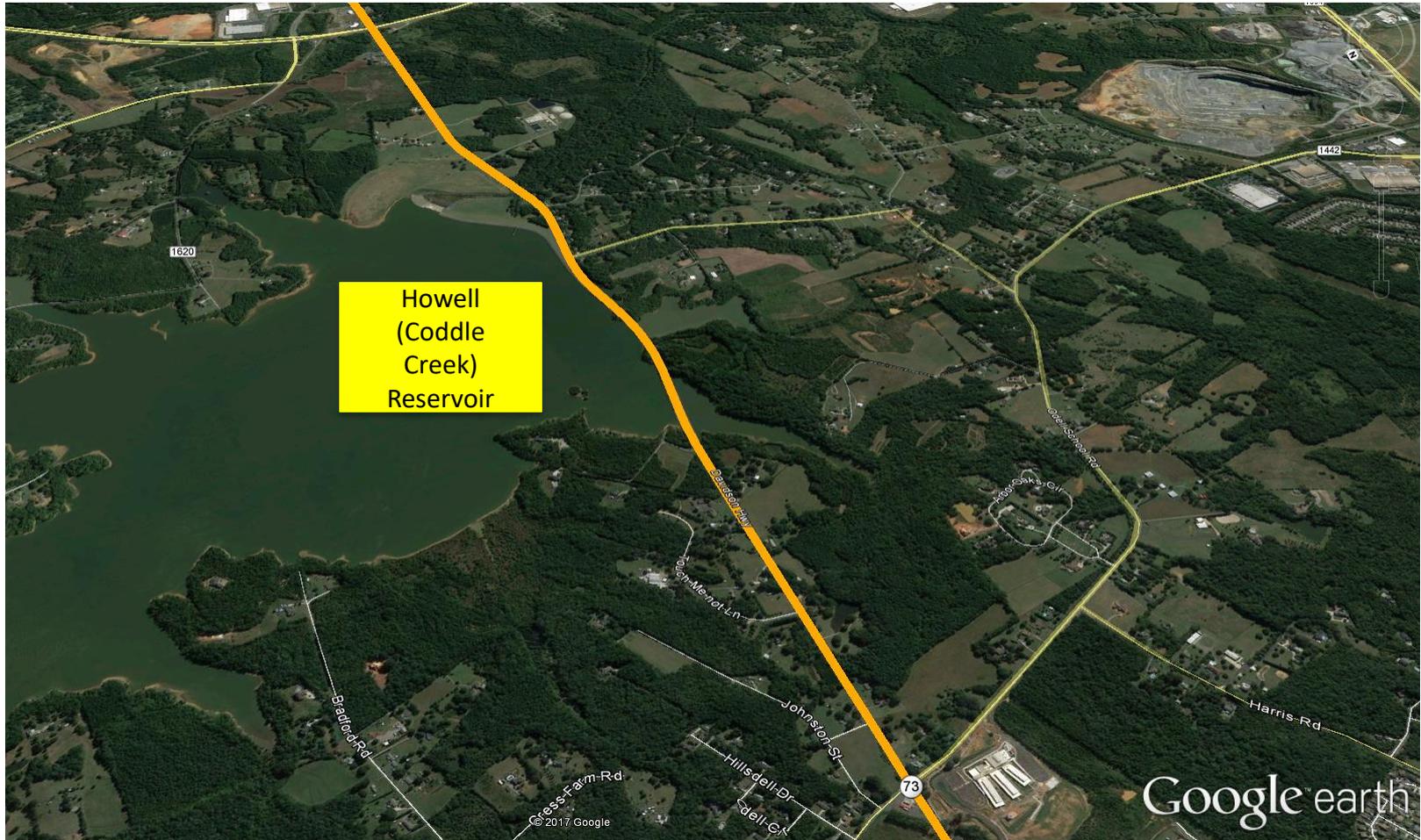
# R-5706: From Sam Furr Road to Shiloh Church Road/Poplar Tent Road - Mostly undeveloped with one recreational facility (Bradford Park).



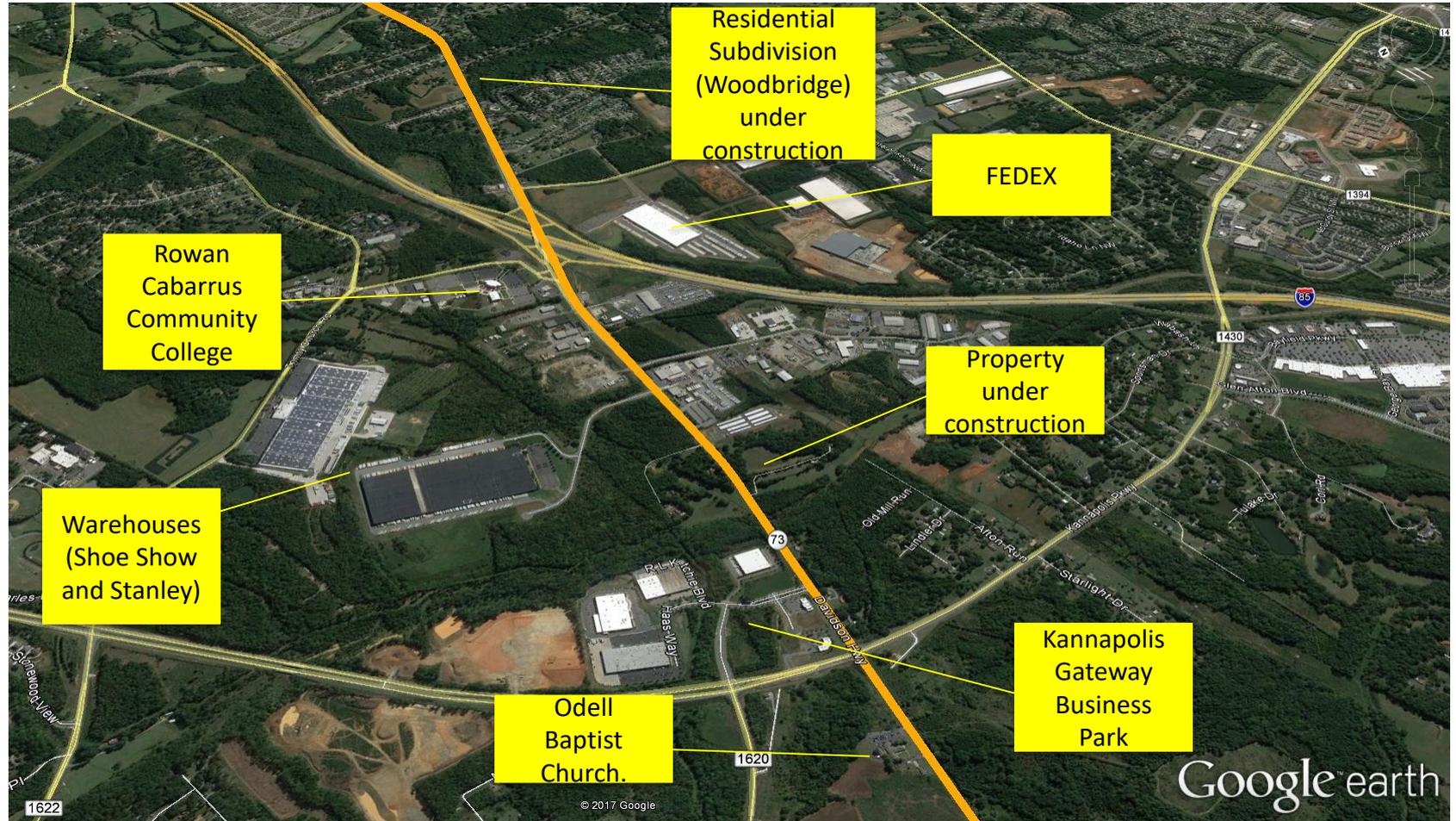
# R-5706: From Shiloh Church Road/Poplar Tent Road to Odell School Road - More residential with some commercial development.



# R-5706: From Odell School Road to Kannapolis Parkway – Low density residential surrounding Howell (Coddle Creek) Reservoir.



# R-5706: From Kannapolis Parkway to East of I-85 – Concentration of industrial use with some commercial.

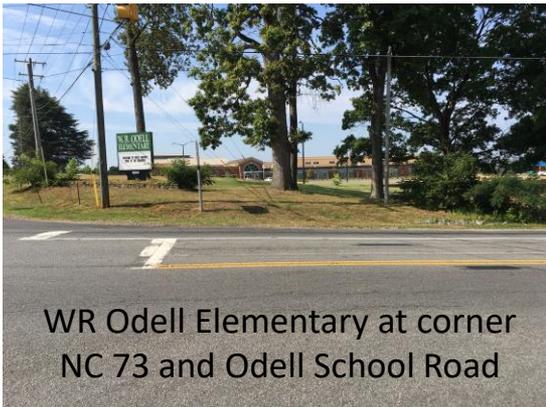


R-5706: From East of I-85 to US 29 – Mostly residential. Higher density residential with some commercial uses near US 29 intersection.



# HUMAN ENVIRONMENT

- Mostly undeveloped/agricultural west of Kannapolis Parkway with some residential and commercial development. Concentration of industrial use surrounding I-85 interchange. Mostly residential east of I-85 with higher density and commercial near US 29.
- Multiple developments are under construction or are planned. Numerous parcels are for-sale along the corridor.



WR Odell Elementary at corner  
NC 73 and Odell School Road

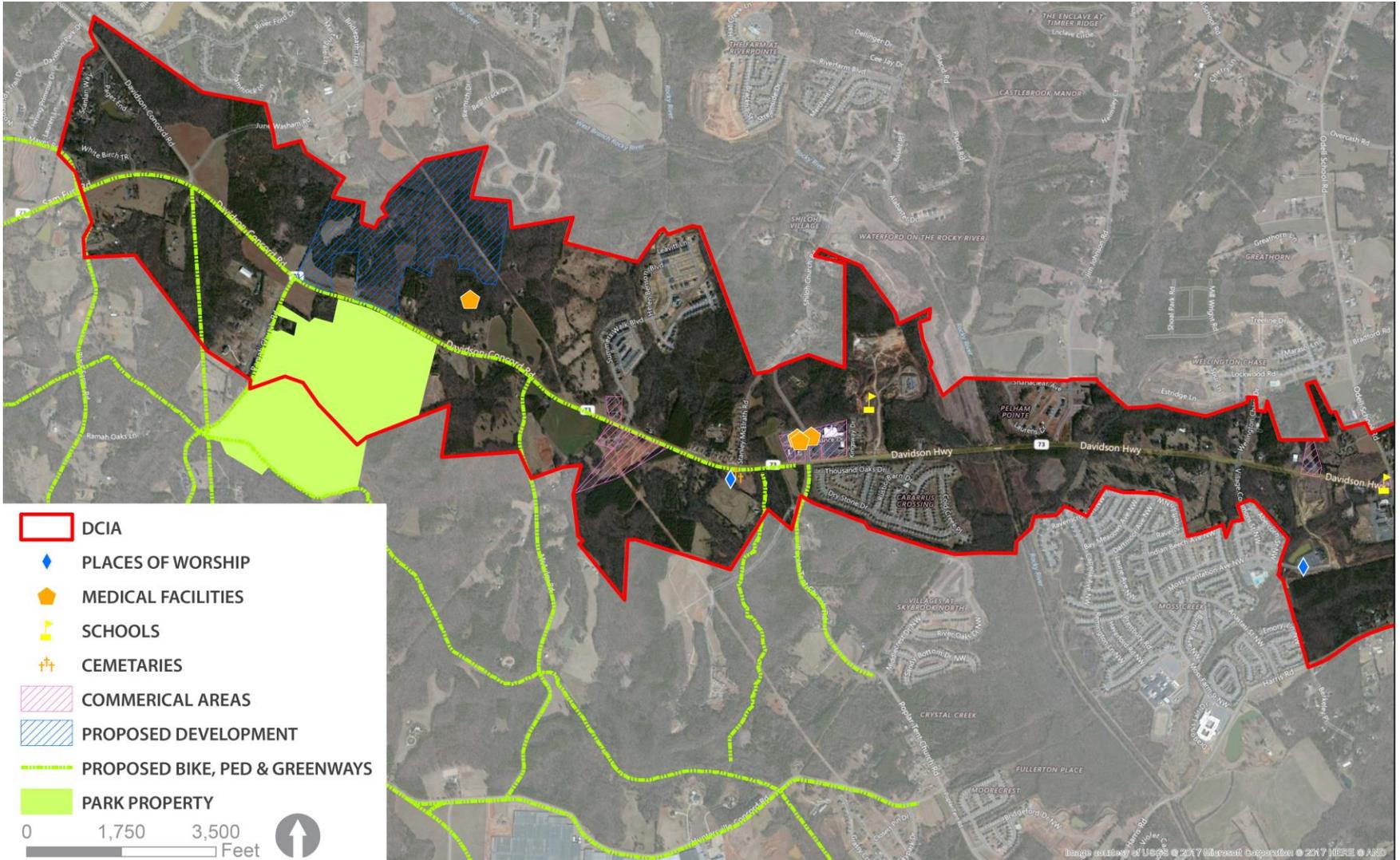


# HUMAN ENVIRONMENT

- Presence of minority and low income populations.
- Presence of Spanish-speaking populations and an Asian and Pacific Island language-speaking population that meet the threshold for language assistance.
- One publicly owned recreation facility (Bradford Park).
- Several Schools and Churches.



# HUMAN ENVIRONMENT



# HUMAN ENVIRONMENT



# HUMAN ENVIRONMENT



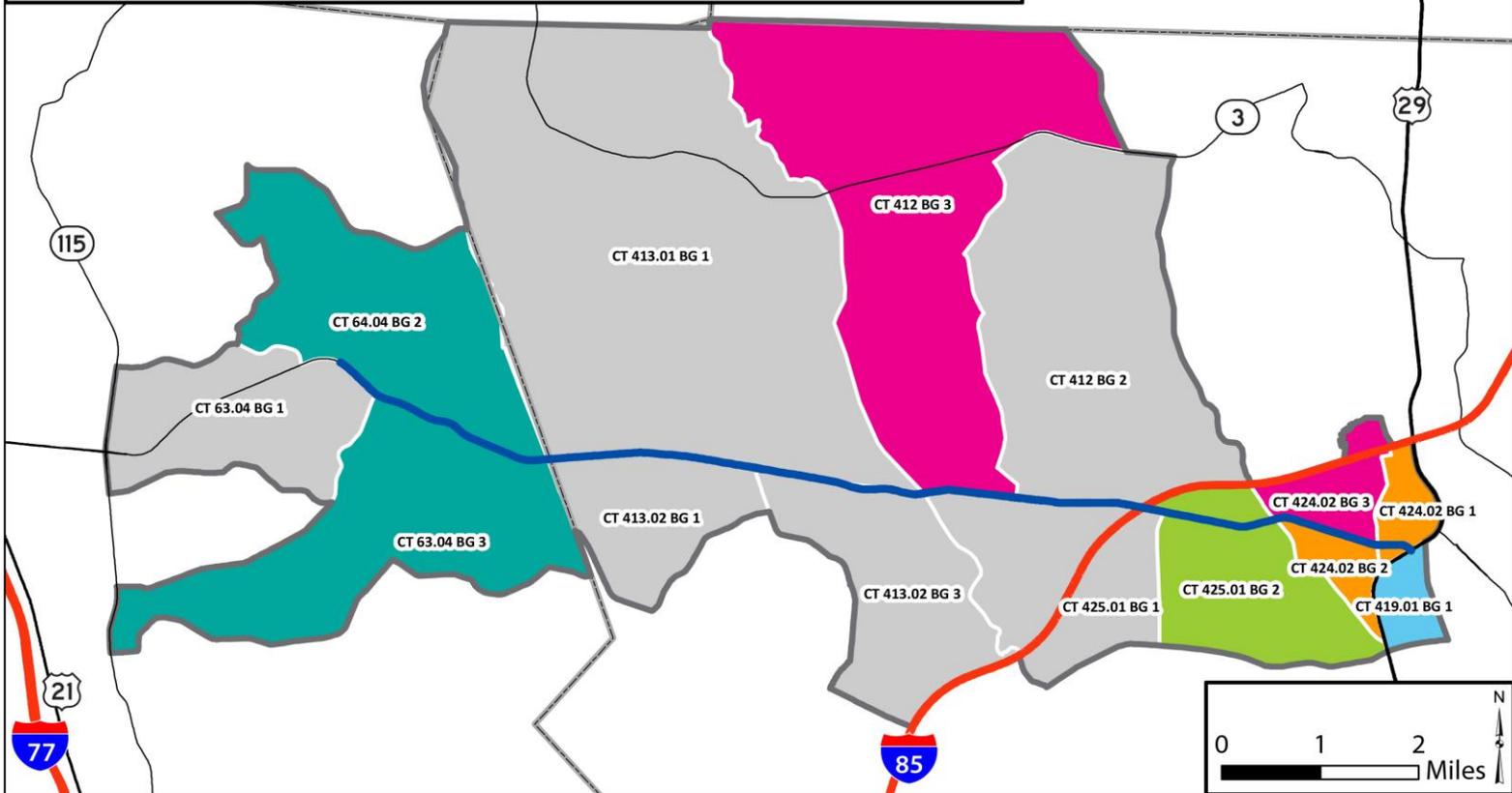
# ENVIRONMENTAL JUSTICE & LANGUAGE ASSISTANCE

- 3 Block Groups meet Minority Environmental Justice Threshold
- 5 Block Groups meet Low-Income Environmental Justice Threshold
- 1 Block Group with an Asian/Pacific Language-Speaking population meets threshold for Language Assistance
- 4 Block Groups with Spanish Language-Speaking population meet threshold for Language Assistance

# DEMOGRAPHIC STUDY AREA

## BLOCK GROUP THRESHOLDS

- Asian Language-Speaking
  - Spanish Language-Speaking
  - Low-Income
  - Low-Income & Minority
  - Low-Income, Minority, & Spanish Language-Speaking
  - None
- R-5706AB
  - Demographic Study Area
  - Interstate
  - US Route
  - NC Highway
  - County Boundary



# CULTURAL RESOURCES

## HISTORIC ARCHITECTURE:

- Historic Structures Report prepared April 2018
  - Section 106 coordination for historic properties is pending
- No historic properties currently listed on the National Register of Historic Places
- Two eligible sites (local landmarks) located in the APE were previously identified:
  - Bradford House/Farm
  - Jesse and Mary K. Washam Farm

## ARCHAEOLOGY:

- No currently listed or eligible archaeological sites in the APE

# NATURAL ENVIRONMENT

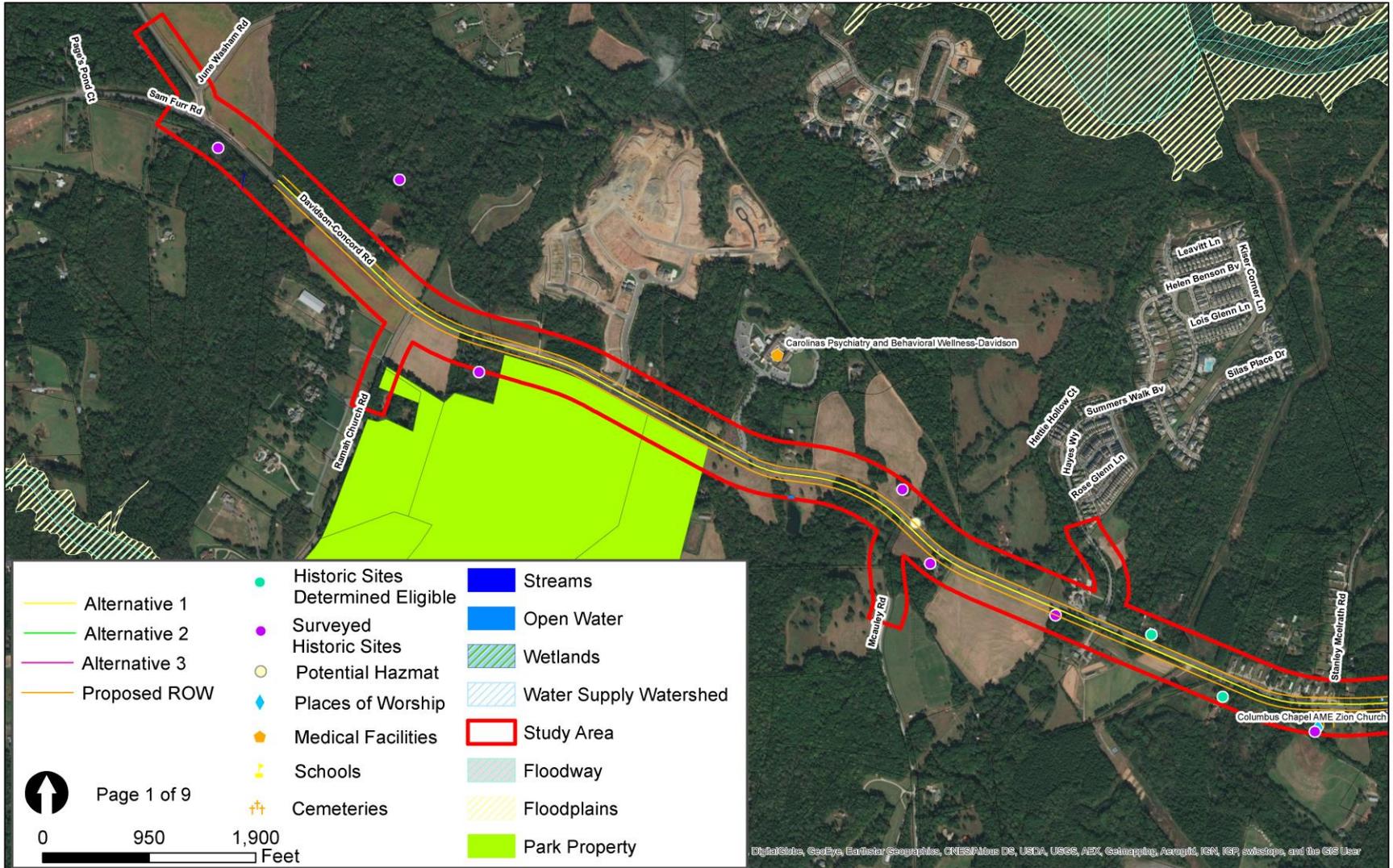
- Fieldwork conducted September 2016 – January 2017
- NC Wetland Assessment Method and NC Stream Assessment Method conducted in May 2017
- Final NRTR approved August 2017
- Potential habitat present for Northern long-eared bat; project consistent with 4(d) rule
- Biological Conclusion for Carolina heelsplitter is No Effect based on no habitat due to degraded stream conditions
- Habitat present for Schweinitz's sunflower, Smooth coneflower, and Michaux's sumac but Biological Conclusion is No Effect based on surveys
- No Effect for rusty-patched bumble bee

# NATURAL ENVIRONMENT

- 51 jurisdictional streams were delineated in the study area
- 75 wetlands were delineated within the study area
- Draft PJD Request submitted for DOT review August 2017; submittal to USACE on hold
- 12 open waters, including Coddle Creek Reservoir
- High Quality Waters and Water Supply Watershed in the study area (Coddle Creek Reservoir and portion of Coddle Creek)
- Rocky River, Coddle Creek, and Irish Buffalo Creek are on the Final 2016 303(d) list of impaired waters

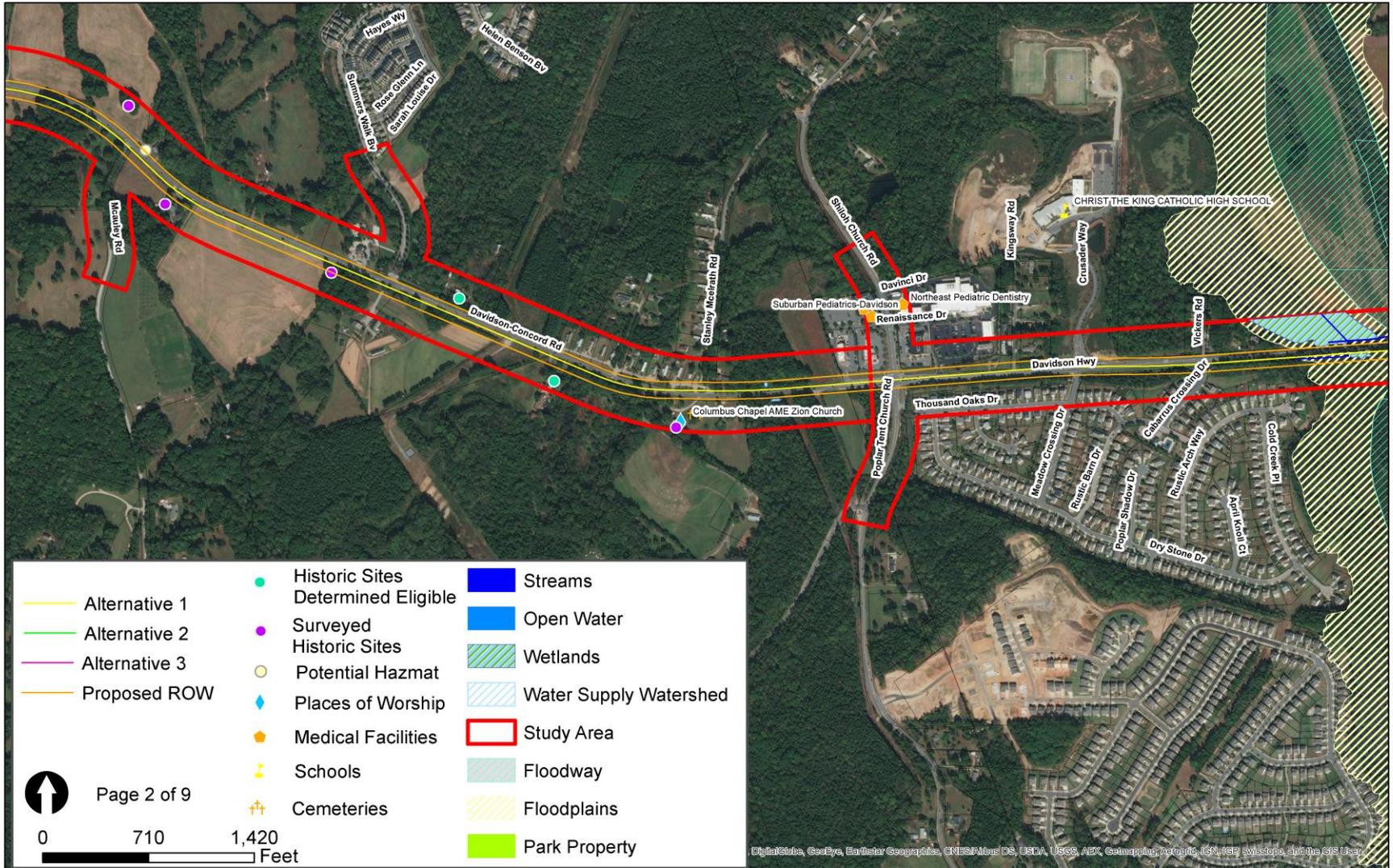


# ENVIRONMENT FEATURES

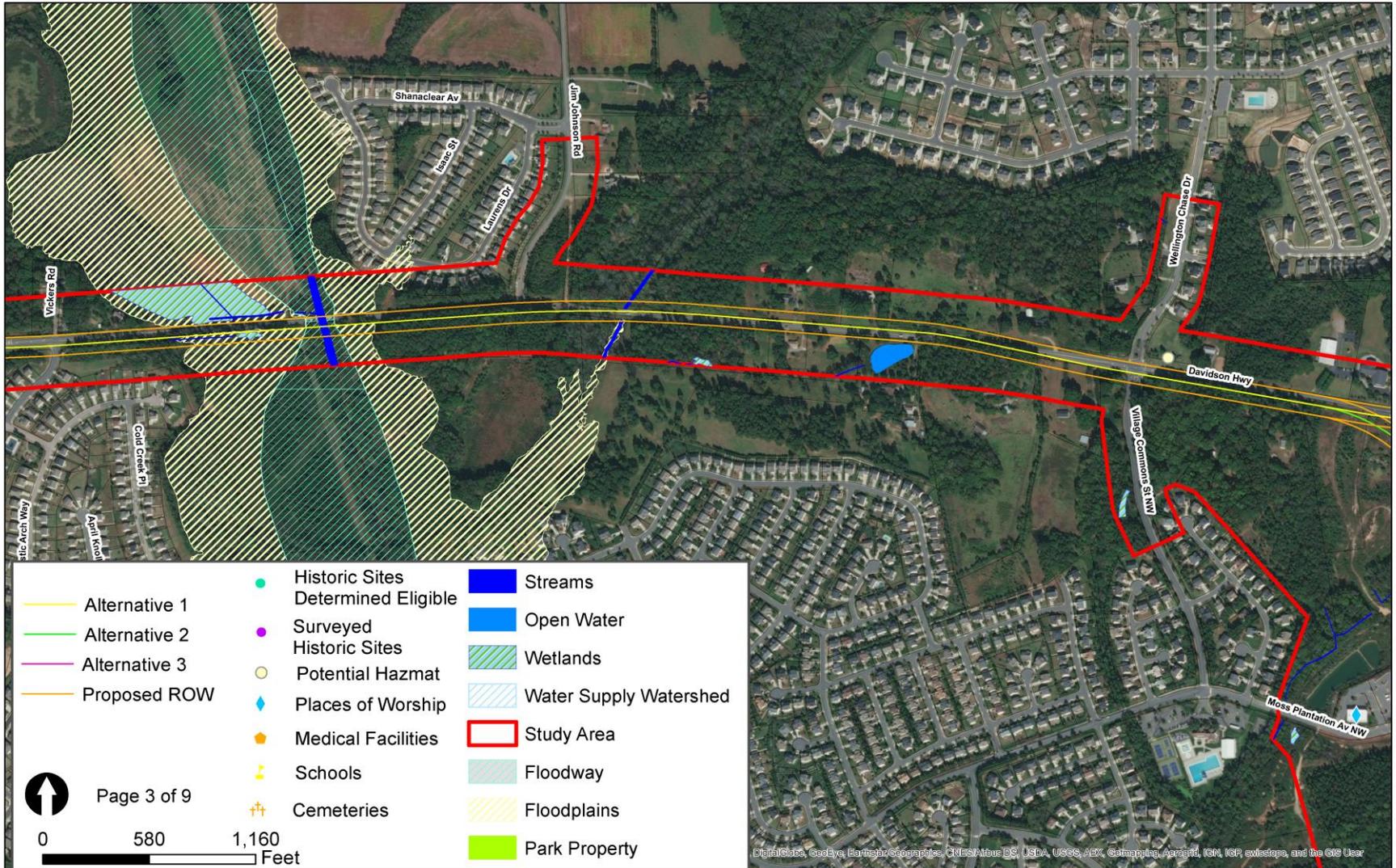


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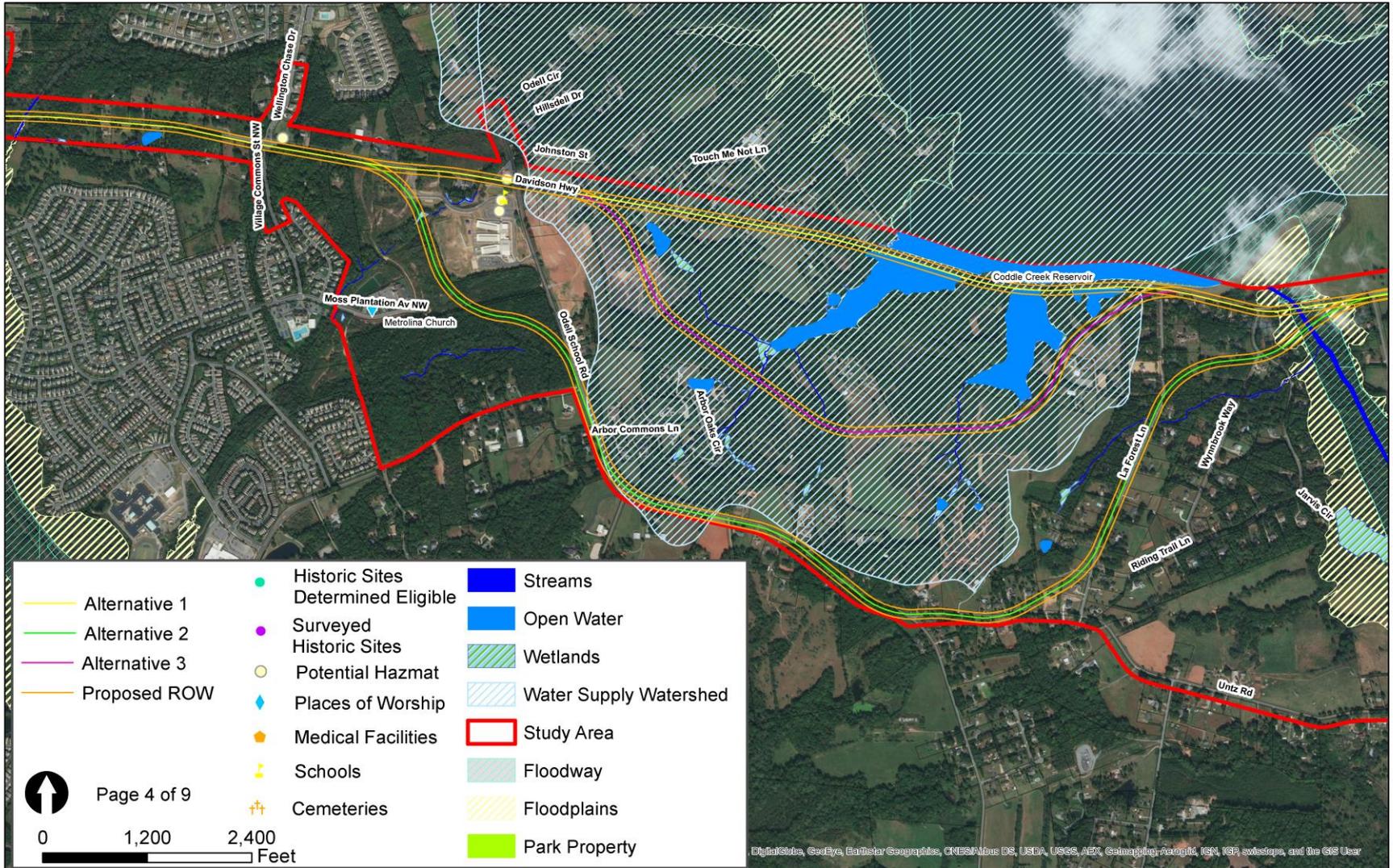
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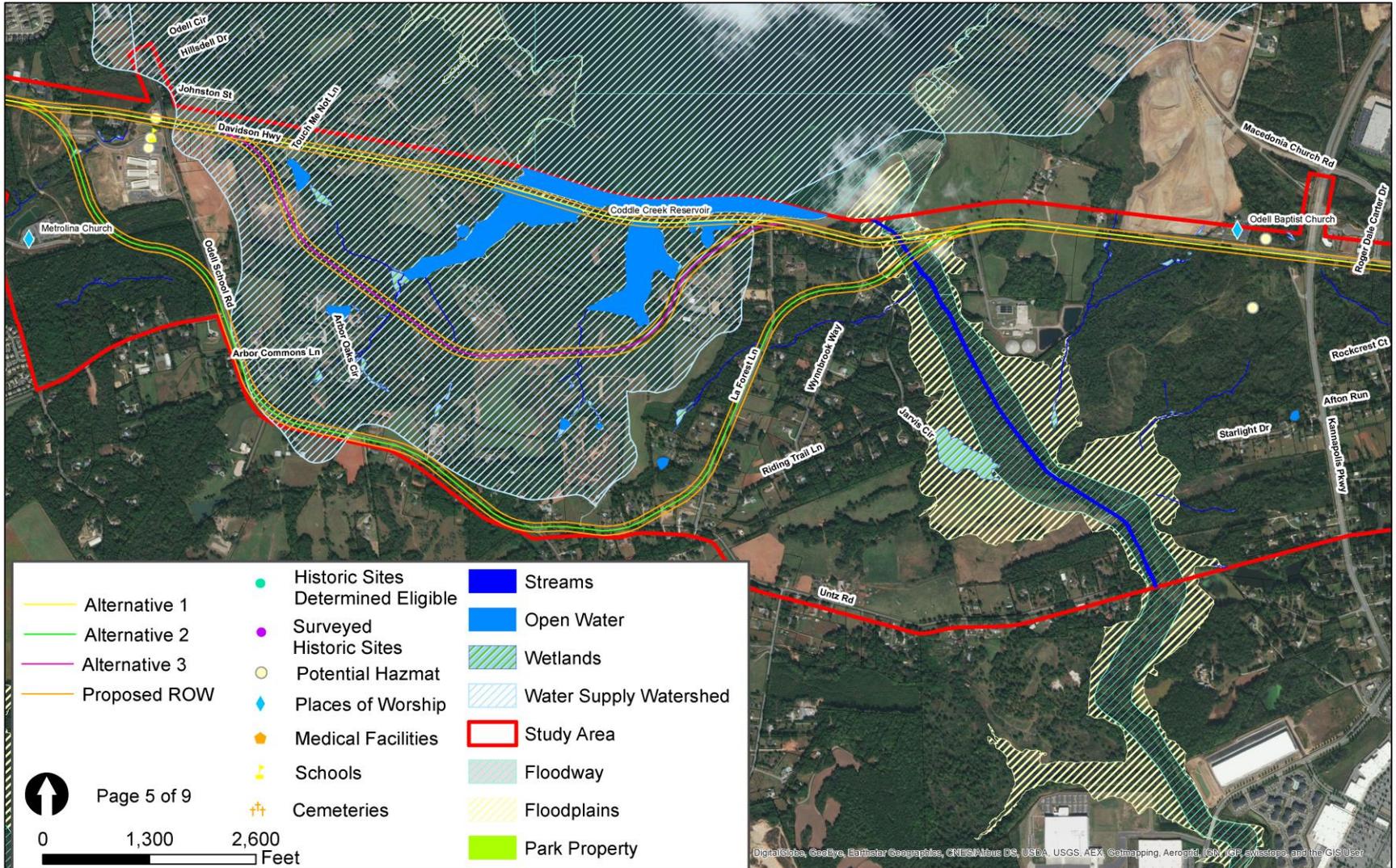
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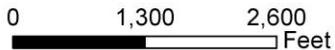
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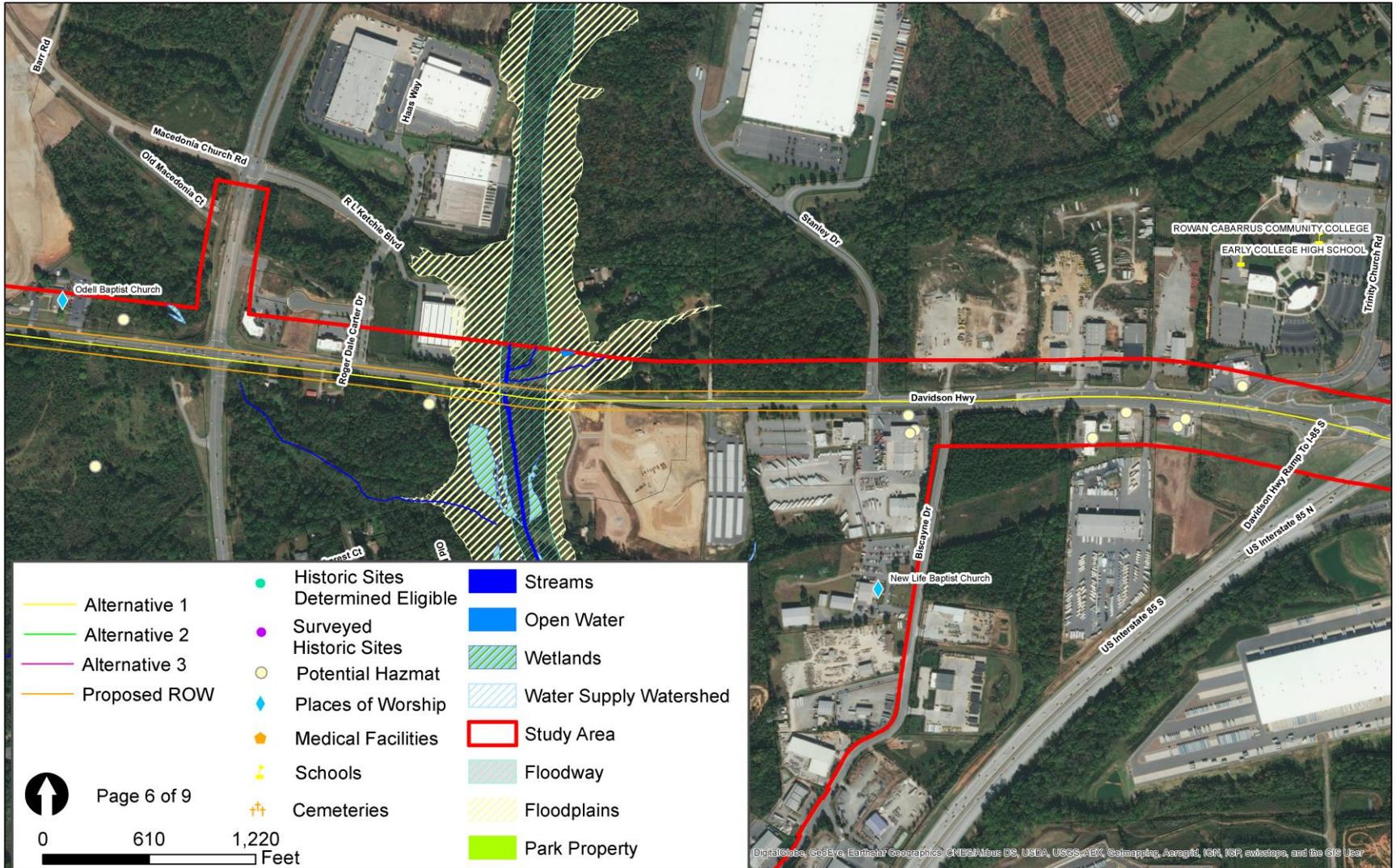


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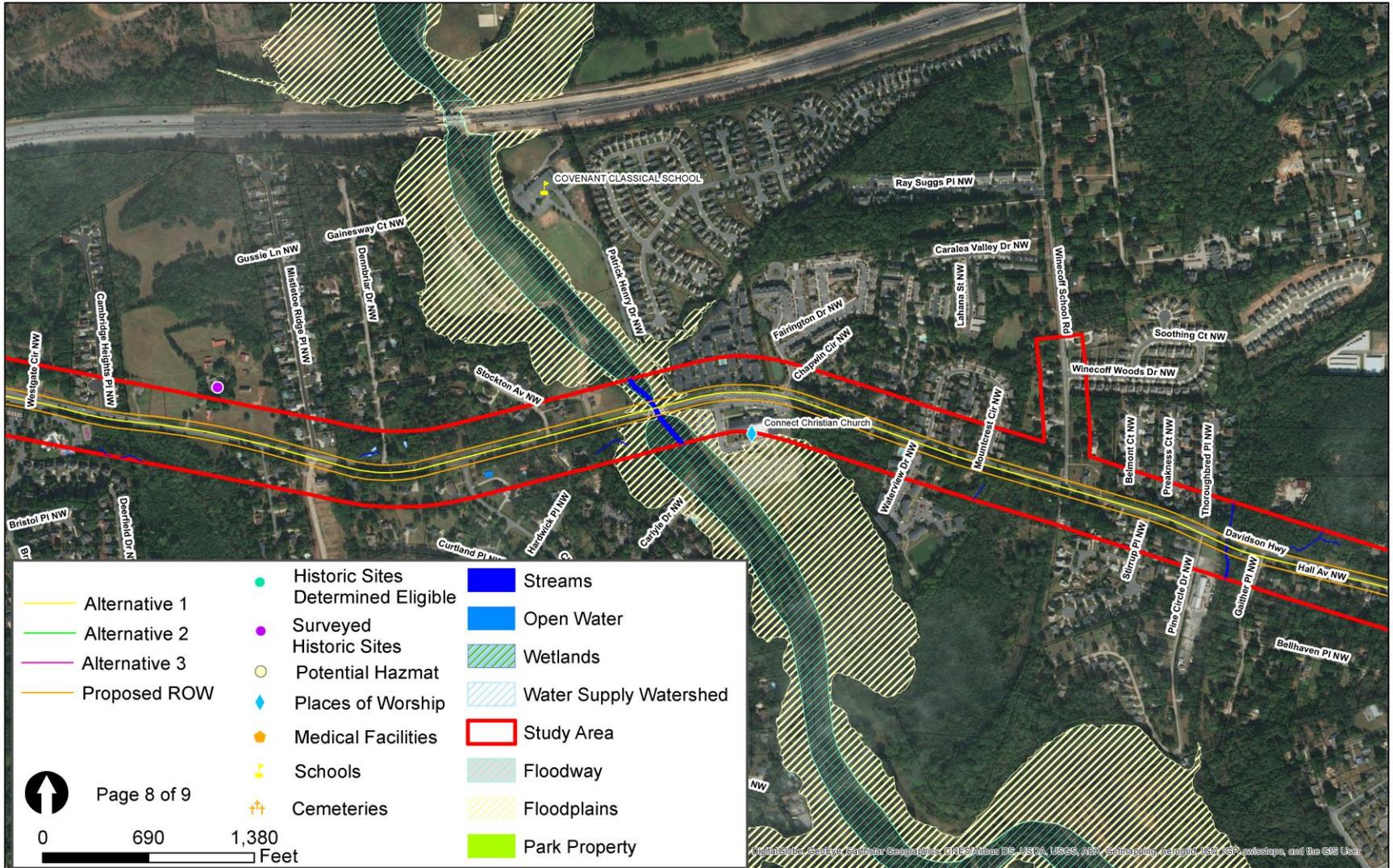
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# ENVIRONMENT FEATURES



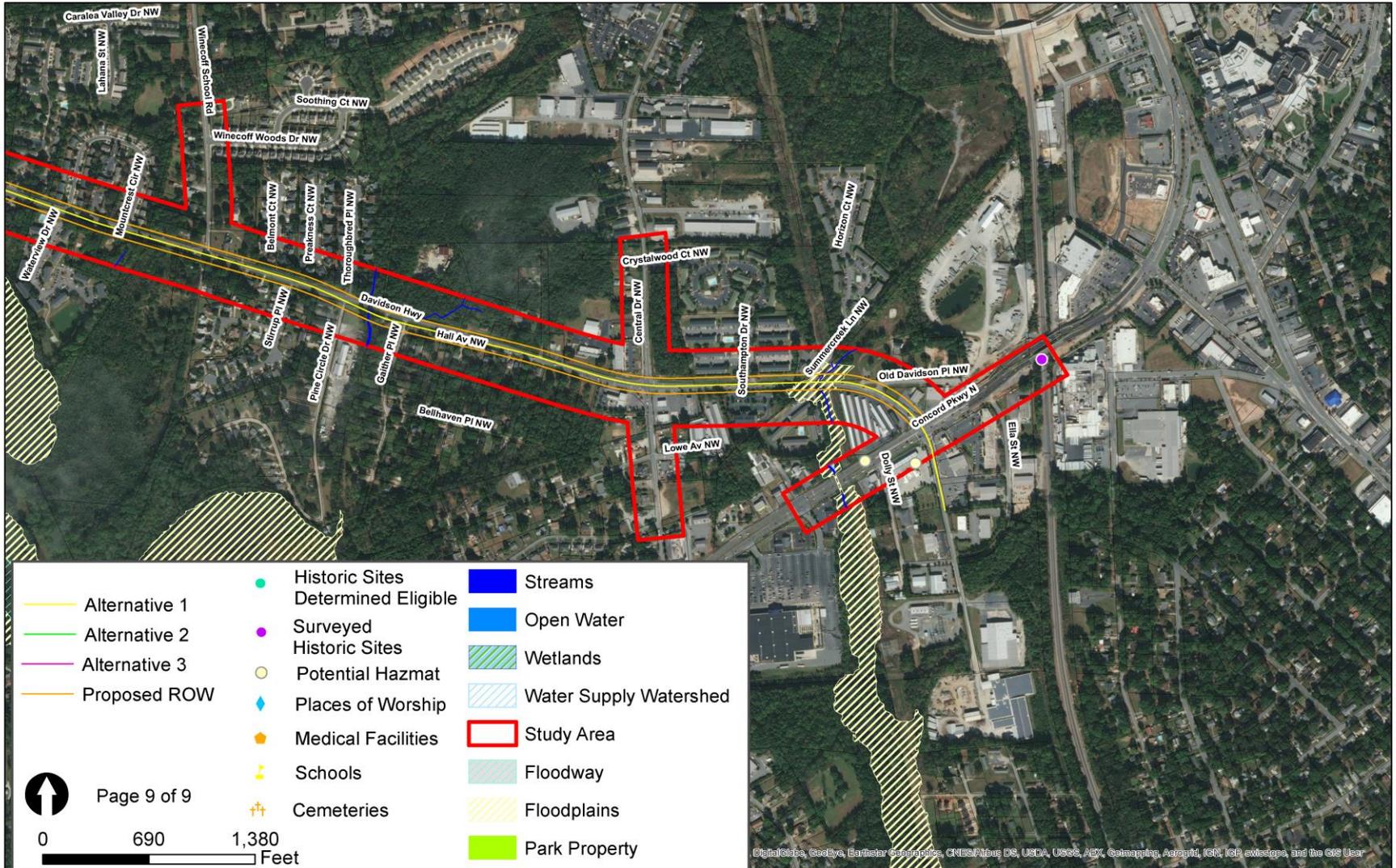


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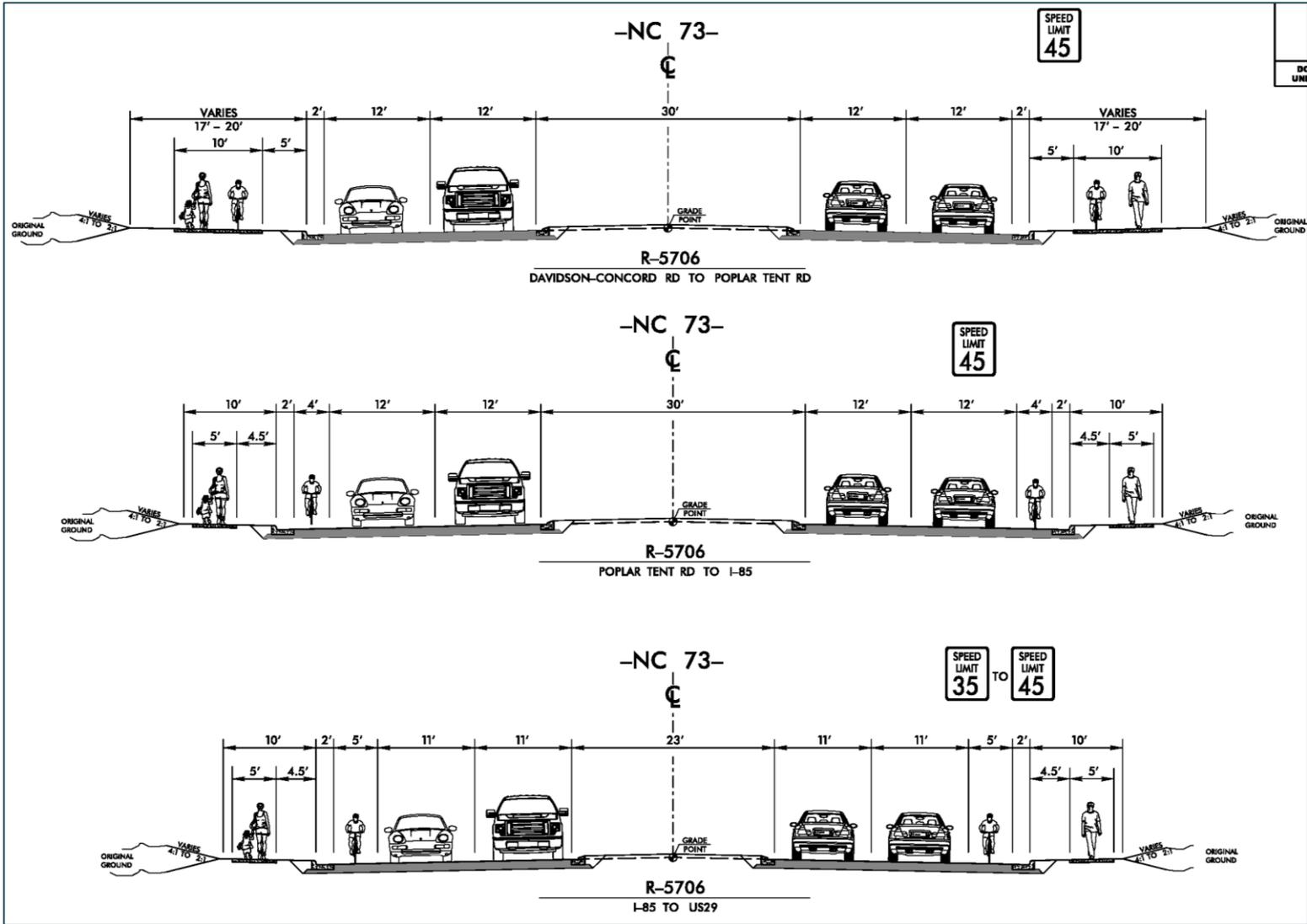


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# ENVIRONMENT FEATURES



# PROPOSED TYPICAL SECTIONS



# PROJECT NEED

*The projected traffic volume for 2040 is projected to exceed the capacity of the existing 2-lane roadway, with the corridor operating at a LOS E. Along NC 73 in the R-5706 section, the existing 2017 AADT ranges between 12,800 – 24,800 vpd and is expected to grow to 22,400 – 46,800 vpd in 2040.*

*NC 73 is currently congested during peak commuting hours with poor level of service (LOS). The corridor currently operates at LOS E during AM and PM peak hours. Without the proposed improvements, the corridor will continue to operate at LOS E in 2040 during peak hours. With the proposed improvements, the corridor is expected to operate at LOS C during AM peak hour and LOS D during PM peak hour.*

*The existing NC 73 corridor currently experiences safety issues likely associated with intersection conflicts and high traffic volumes. The total and non-fatal injury crash rates along NC 73 exceeded the statewide and critical crash rates for the five-year period analyzed (October 2012 to September 2017). The most widely-occurring type of crash along the corridor, including at signalized intersections, was rear-end crashes, which are typically associated with congested conditions.*

*West of I-85, NC 73 provides the only direct route between the Davidson, Cornelius, Huntersville and western Kannapolis areas and I-85 north of I-485 in the Charlotte region. Other east-west connections are provided through local routes, but these are often indirect and primarily serve local traffic.*

*East of I-85, NC 73 is a critical route serving Concord's and Kannapolis' mobility between I-85 and US 29.*

# PROJECT PURPOSE

*The purpose of the project is to increase mobility between the Davidson, Concord, Huntersville, Kannapolis and Concord areas to I-85, reduce congestion at the intersections, and improve traffic operations along NC 73, with an operational target of LOS D in the 2040 design year. A secondary project purpose is to enhance pedestrian and bicycle mobility.*

# INDIVIDUAL UNITS INPUT

- Division 10
- Program Development
- Roadway Design
- Structure Design
- Hydraulics Unit
- WZTC
- Utilities
- Human Environment (Noise & Air, Public Involvement, Community Studies)
- Natural Environment
- Roadside Environment
- Bicycle and Pedestrian
- Utilities
- Congestion Management
- STIP
- Right of Way
- Location and Surveys

# LOCAL OFFICIALS INPUT

- Town of Huntersville
- Town of Cornelius
- Town of Davidson
- City of Kannapolis
- City of Concord
- Cabarrus County

# AGENCY INPUT

- FHWA
- USACE
- NCDEQ
- US EPA
- USFWS
- NCWRC
- SHPO
- CRTPO
- CRMPO

# Tentative Project Schedule (Subject to Change)

	<b>R-5706</b>
External Scoping/CP 1	July 2018
Preliminary Design	October 2018
First Public Meeting	October 2018
Merger CP 2/2A	October 2018
Merger CP 3/4A	January 2019
Second Public Meeting	March 2019
Final Document	Summer 2019
ROW Date	FY 2020

# QUESTIONS?

**R-5706**  
**SECTION 404/NEPA MERGER**  
**PROJECT TEAM MEETING**

**CONCURRENCE POINT 1:**

**PROJECT PURPOSE AND NEED &**  
**STUDY AREA DEFINED**

# CONCURRENCE POINT 1: PURPOSE AND NEED

## Need for the Project:

- The current year (2017) annual average daily traffic (AADT) along NC 73 ranges from 12,800 vehicles per day (vpd) to 24,800 vpd. In 2040, NC 73 is expected to carry between 22,400 vpd and 46,800 vpd. Population and employment growth will increase travel demand along NC 73, with most sections of the roadway forecasted to increase in traffic volumes by approximately 30 percent in 2040.

# CONCURRENCE POINT 1: PURPOSE AND NEED

## Need for the Project:

- NC 73 is currently congested during peak commuting hours with poor level of service (LOS). The corridor currently operates at LOS E during AM and PM peak hours. Without the proposed improvements, the corridor will continue to operate at LOS E in 2040 during peak hours. With the proposed improvements, the corridor is expected to operate at LOS C during AM peak hour and LOS D during PM peak hour.

# CONCURRENCE POINT 1: PURPOSE AND NEED

## Need for the Project:

- The existing NC 73 corridor currently experiences safety issues likely associated with intersection conflicts and high traffic volumes. The total and non-fatal injury crash rates along NC 73 exceeded the statewide and critical crash rates for the five-year period analyzed (October 2012 to September 2017). The most widely-occurring type of crash along the corridor, including at signalized intersections, was rear-end crashes, which are typically associated with congested conditions.

# CONCURRENCE POINT 1: PURPOSE AND NEED

## Need for the Project:

- West of I-85, NC 73 provides the only direct route between Davidson, Cornelius, Huntersville and western Kannapolis areas and I-85 north of I-485 in the Charlotte region. Other east-west connections are provided through local routes, but these are often indirect and primarily serve local traffic.
- East of I-85, NC 73 is a critical route serving Concord's and Kannapolis' mobility between I-85 and US 29.

# CONCURRENCE POINT 1: PURPOSE AND NEED

## PROJECT PURPOSE:

The purpose of the project is to increase mobility between the Davidson, Concord, Huntersville, Kannapolis and Concord areas to I-85, reduce congestion at the intersections, and improve traffic operations along NC 73, with an operational target of LOS D in the 2040 design year. A secondary project purpose is to enhance pedestrian and bicycle mobility.

# CONCURRENCE POINT 1: STUDY AREA DEFINED



# CONCURRENCE POINT 1: STUDY AREA DEFINED

## Section 404/NEPA Merger Project Team Meeting Agreement

### Concurrence Point 1

#### Purpose and Need and Study Area Defined

**Project Description:** STIP Project R-5706 proposes widening NC 73 (Davidson-Concord Road/Davidson Highway) from SR 2693 (Davidson-Concord Road) to US 29 (Concord Parkway) to four-lanes. The project is comprised of two segments: R-5706A and R-5706B. R-5706A extends from SR 2693 (Davidson-Concord Road) to SR 1394 (Poplar Tent Road) near the Mecklenburg County – Cabarrus County line. R-5706B extends from SR 1394 (Poplar Tent Road) to US 29 in Cabarrus County. The project will include bicycle and pedestrian accommodations.

**STIP Project:** R-5706

#### **Purpose and Need of Proposed Project:**

The current year (2017) annual average daily traffic (AADT) along NC 73 ranges from 12,800 vehicles per day (vpd) to 24,800 vpd. In 2040, NC 73 is expected to carry between 22,400 vpd and 46,800 vpd. Population and employment growth will increase travel demand along NC 73, with most sections of the roadway forecasted to increase in traffic volumes by approximately 30 percent in 2040.

NC 73 is currently congested during peak commuting hours with poor level of service (LOS). The corridor currently operates at LOS E during AM and PM peak hours. Without the proposed improvements, the corridor will continue to operate at LOS E in 2040 during peak hours. With the proposed improvements, the corridor is expected to operate at LOS C during AM peak hour and LOS D during PM peak hour.

The existing NC 73 corridor currently experiences safety issues likely associated with intersection conflicts and high traffic volumes. The total and non-fatal injury crash rates along NC 73 exceeded the statewide and critical crash rates for the five-year period analyzed (October 2012 to September 2017). The most widely-occurring type of crash along the corridor, including at signalized intersections, was rear-end crashes, which are typically associated with congested conditions.

West of I-85, NC 73 provides the only direct route between the Davidson, Cornelius, Huntersville and western Kannapolis areas and I-85 north of I-485 in the Charlotte region. Other east-west connections are provided through local routes, but these are often indirect and primarily serve local traffic.

East of I-85, NC 73 is a critical route serving Concord's and Kannapolis' mobility between I-85 and US 29.

The purpose of the project is to increase mobility between the Davidson, Concord, Huntersville, Kannapolis and Concord areas to I-85, reduce congestion at the intersections, and improve traffic operations along NC 73, with an operational target of LOS D in the 2040 design year. A secondary project purpose is to enhance pedestrian and bicycle mobility.

#### **Study Area Boundary:**

Study Area boundary is attached in the Concurrence Point 1 meeting packet.

# SUMMARY/ADJOURN